

STATUS OF THE CLAIMS

Claims 1-5 and 7-16 are currently pending in this application;

Claims 1, 4, 7 and 11 are currently amended;

Claims 2, 3, 5, 8-10 and 12-15 are original;

Claim 6 is canceled;

Claim 16 is added.

Please amend the claims as follows:

1. (Currently amended) A method for identifying face regions in a color image comprising: providing image representative data including data representative of chrominance for incremental portions of said image; comparing said chrominance representative data for each incremental image portion to chrominance values known to be representative of skin tones, to thereby distinguish image portions representing skin tone colors from other image portions; and ~~the shape comparing regions having contiguous skin tone image portions~~ comparing said shapes of image portions representing skin tone colors to templates at least one template consistent with the shape of a human face image to thereby identify possible face regions.

2. (Original) A method as specified in claim 1 wherein said step of comparing the shape of regions, includes comparing said regions to rectangular templates.

3. (Original) A method as specified in claim 2 wherein said rectangular templates have vertical to horizontal aspect ratios between 1 and 1.7.

4. (Currently amended) A method as specified in claim 2 wherein there is provided a further step of comparing the spatial frequency characteristics of data representing luminance in said ~~false~~ face regions to at least one threshold value, and eliminating possible face regions having ~~spacial~~ spatial frequency characteristics below said threshold value.

5. (Original) A method as specified in claim 4, wherein said spatial frequency characteristics comprise the ratio of vertical energy to horizontal energy.

6. (Canceled)

7. (Currently amended) A method as specified in claim 1 for use in connection with image representative data comprising an MPEG signal wherein said step of comparing and said chrominance representative components comprises comparing said components in incremental image portions comprising MPEG macroblocks.

8. (Original) A method as specified in claim 7 wherein said step of comparing said chrominance representative data is applied to an I frame of said MPEG signal.

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9. (Original) A method as specified in claim 8 wherein said step of comparing said chrominance representative data comprises comparing the DC component of said chrominance representative data.

10. (Original) A method as specified in claim 7 wherein said step of comparing the shape of regions further comprises eliminating regions having less than a selected number of macroblocks.

11. (Currently amended) A method as specified in claim 7 wherein said step of comparing the shape of region regions comprises comparing said regions to rectangular templates using the top and side edges of said templates.

12. (Original) A method as specified in claim 11 wherein said step of comparing the shape of regions comprises comparing the number of macroblocks in said rectangular template having chrominance regions representing skin tones to the number of macroblocks adjoining said rectangular template on said top and side edges having chrominance regions representing skin tones.

13. (Original) A method as specified in claim 7, further comprising applying a spatial cross median filter to adjacent macroblocks.

14. (Original) A method as specified in claim 1 wherein said step of comparing the shape of regions includes dividing said image into segments having skin tone image portions and segments not having skin tone image portions.

15. (Original) A method for identifying face regions in a color image represented as data, including chrominance data for incremental portions of said image comprising comparing said chrominance data for each image portion to chrominance data values known to be representative of skin tones and characterizing the corresponding image portion as skin tone or not skin tone, and comparing the shape of regions having contiguous skin tone image portions to at least one shape template to thereby identify face regions.

16. (New) A method for identifying face regions in a color image comprising:
providing image representative data including data representative of chrominance for incremental portions of said image;
comparing said chrominance representative data for each incremental image portion to chrominance values known to be representative of skin tones, to thereby distinguish image portions representing skin tone colors from other image portions;
comparing the spatial frequency characteristics of data representing luminance in said face regions to at least one threshold value, and eliminating possible face regions having spatial frequency characteristics below said threshold value, wherein said spatial frequency characteristics comprise the ratio of vertical energy to horizontal energy;
further comprising comparing the DC energy of data representing luminance in said possible face regions to a second threshold and eliminating false face regions having DC energy above a second threshold value; and
comparing said shapes of image portions representing skin tone colors to at least one rectangular template consistent with the shape of a human face image to thereby identify possible face regions.